UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

00000

FILE COPY

PROJECT #_____
NAME_____
CATEGORY/DESCRIPTION_____
_____
CROSS REFERENCE #_____
SUBMITTED BY_____

REPLY TO THE ATTENTION OF:
SR-6J

March 4, 1997
DCL097006

Mr. Joseph Benedict
Forest Preserve District of DuPage County
P.O. Box 2339
Glen Ellyn, IL 60138

RE: Comments on the Predesign Investigation Technical Memorandum

Dear Mr. Benedict:

Thank you for submittal of the document entitled *Technical Memorandum Predesign Investigation, Blackwell Landfill NPL Site*, dated January 1997. The United States Environmental Protection Agency (USEPA) has reviewed this document and solicited comments from the Illinois Environmental Protection Agency (IEPA). The following is a summary of these comments.

Comment Number

① Page 3, Paragraph 1 - The first sentence implies that borings TB67, TB68, TB69 and TB70 were all extended to a depth of 15 feet. This is inconsistent with the boring logs that show only TB70 extended to a depth of at least 15 feet.

② Comparing the boring logs and the new estimated limits of refuse in Drawing D1, the location of the line appears inconsistently applied. For example, in some areas the line passes directly through the outermost soil boring showing no municipal waste (i.e., TB27) and directly through another boring that shows municipal waste present (i.e., TB65). The decision rule for inference of the estimated limits should be appropriately defined and consistently applied.

③ A major component of this field work was to determine where the cover has less than 2 feet of low permeability cover (i.e., clays) over refuse. Drawing D2 shows only two distinct locations where it is estimated that low permeability cover materials are thinner than 2 feet above the refuse. Supporting text on page 4, paragraph 1, indicates that the landfill cap materials present are comprised of silty clay (USGS classification CL) with some clayey silt (USGS classification ML), which are considered suitable for use in capping. This conclusion is presumably based on the permeability testing that was conducted and appears justifiable. However, the boring logs at several locations do not identify silty clays and clayey silts, but sands and gravels as being present above the refuse. Although the exact permeabilities of the mixed sands and gravels in these borings is unknown, it is certainly possible that they may not be classified as "low permeability

materials". Therefore, based on the soil descriptions in the boring logs and a lack of sand and gravel permeability data, a number of borings do not appear to have 2 feet of low permeability materials present. Specifically, in boring TB25, there is no soil logging presented, so it is unclear if sufficient low permeability materials are present. Also, based on descriptions in the soil loggings, there does not appear to be 2 feet of low permeability soils above the refuse in borings TB26, TB28, TB35, TB45, TB47, TB58, TB62, and TB83. Additional justification should be provided or additional work should be conducted to evaluate these permeabilities. (Note: it appears that the additional work contemplated in Drawing D3 will not answer these questions).

④ There does not appear to be enough information to estimate the lateral extent of refuse on Drawing D1 near TB41 based on the available borings. According to the boring log, municipal waste was encountered at 4 feet at TB41. The extrapolated extent of refuse on Drawing D1 is located just east of TB41 but there are no borings east of TB41. For this reason, it appears that we do not presently know the extent of the refuse east of TB41 and, therefore, have no conclusive basis for placing the line on D1 east of TB41.

⑤ Borings TB64 & TB73 extend to a depth of 13 and 24 feet, respectively, before refuse is encountered. These locations are then included within the extrapolated extent of refuse because refuse is determined to be present. The problem here is that many borings were stopped at 8 feet, so it is unclear if refuse is present deeper and whether those locations should also be included inside the extrapolated extent of refuse. This may be a moot point with regard to whether sufficient low permeability soils are present because of the depth and type of cover material, but it appears to undermine the objective of finding the true extent of waste.

⑥ Why are borings TB69 and TB70 contained within the estimated footprint of the refuse in Drawing D1 when no waste was detected?

⑦ Why is boring location TB74 outside of the extrapolated extent when refuse was detected at 21 feet (conversely, TB75 is located directly adjacent to TB74, waste was detected at 24 feet, and TB75 is located inside the footprint)?

⑧ The boring log for TB81 is confusing. Was waste detected at 9 to 9.5 feet, and if so, how could the boring end at 9.0?

⑨ With regard to the groundwater monitoring program, it is my understanding that all of the wells identified as either detection or compliance will be sampled for all volatile organic compounds on the Target Compound List (TCL) on a quarterly basis, and all semivolatile organic compounds on the TCL and the full Target Analyte List (TAL) on an annual basis, consistent with the AOC Statement of Work.

Based on this above understanding, and absent any compelling reasons otherwise, the following additions to the proposed sampling program should be made.

Detection Wells

(10) Wells G130S, and G118S, should be added to the initial list of shallow detection wells that will be sampled in the glacial outwash aquifer. These additions will provide better coverage on the north west side of the landfill. (11) Also, there is currently a disproportionately large gap in deep detection coverage between wells G-128D and G-135, over 1000 feet (there is an equally large gap in deep compliance monitoring in the same area, so no down gradient protection is present). This gap needs to be addressed.

Compliance Wells

(12) Wells G-131D and P-3 should be added for more thorough deep well compliance coverage. (13) Also, a total of two shallow compliance wells covering over 3000 liner feet of outwash aquifer is insufficient initial shallow compliance coverage. Shallow compliance wells are necessary in the general area of G-138, P-3 and G-139 to form well clusters (shallow wells G-133S and G-122 are arguably close enough to be paired with G-133D and G-131D, respectively).

(14) If upon completion of 8 rounds of sampling contaminant concentrations throughout the system of groundwater monitoring wells are not increasing, the Forest Preserve District may petition to allow monitoring on a less frequent basis.

(15) Finally, according to Section 2, Page 3, of the design work plan, one of the objectives of the predesign investigation is to "assess impacts of remedial activities on the site". Based on the predesign investigation activities performed to date, and the additional activities recommended by Montgomery Watson, it is unclear how this objective will be met. The revised TM or future design submittals should clearly explain how this objective was, or will, be met.

If you have any questions regarding this letter, or would like to discuss these comments in greater detail, please do not hesitate to contact me (312) 353-6425.

Sincerely,

Michael E. Bellot
EPA Remedial Project Manager

cc: Rick Lanham, IEPA
Jerry Hartwig, FPD
Peter Vagt, MW
Kostas Dovantzis, PRC